



DEFENSE INFORMATION SYSTEMS AGENCY

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IN REPLY
REFER TO: Joint Interoperability Test Command (JTE)

16 Feb 10

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Special Interoperability Test Certification of the Polycom RMX 2000 with Software Release 4.5.0.F

References: (a) DoD Directive 4630.5, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems," 15 December 2008
(c) through (e), see Enclosure 1

1. References (a) and (b) establish the Defense Information Systems Agency (DISA), Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.

2. The Polycom RMX 2000 with Software Release 4.5.0.F is hereinafter referred to as the system under test (SUT). The SUT met all of the critical interface and functional interoperability requirements and is certified for use within the Defense Switched Network (DSN) as a Video Teleconferencing (VTC) system. The SUT also met the conditional requirements for an Internet Protocol (IP) interface with the International Telecommunication Union - Telecommunication Standardization Sector (ITU-T) H.323 protocol; however, Assured Service is not yet defined for an IP interface with ITU-T H.323 protocol. Therefore, Command and Control (C2) VTC users and Special C2 VTC users are not authorized to be served by an IP interface with the ITU-T H.323 protocol. The SUT meets the critical interoperability requirements set forth in References (c) and (d) using test procedures derived from Reference (e). No other configurations, features, or functions, except those cited within this report, are certified by the JITC. This certification expires upon changes that affect interoperability, but no later than three years from the date of this memorandum.

3. This finding is based on interoperability testing, DISA adjudication of open test discrepancy reports (TDRs), review of the vendor's Letters of Compliance (LoC), and Defense Information Assurance (IA)/Security Accreditation Working Group (DSAWG) accreditation. Interoperability testing was conducted by the Telecommunication Systems Security Assessment Program at the testing facility of the 346th Test Squadron at the 318th Information Operations Group, San Antonio, Texas, from 24 August through 11 September 2009. DISA adjudication of outstanding TDRs was completed on 26 January 2010. Review of the LoC was completed on 11 September 2009. DSAWG granted accreditation on 8 December 2009 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (f).

Enclosure 2

JITC Memo, JTE, Special Interoperability Test Certification of the Polycom RMX 2000 with Software Release 4.5.0.F

The Certification Testing Summary (Enclosure 2) documents the test results and describes the test configuration.

4. The Functional Requirements used to evaluate the interoperability of the SUT and the interoperability statuses are indicated in Table 1.

Table 1. SUT Functional Requirements and Interoperability Status

| Interface | Critical | Certified | Functional Requirements | Status | UCR Reference |
|---|-----------------|------------------|--|------------------|---------------------------|
| IP (10/100 Mbps) ITU-T H.323 | No ¹ | Yes ² | The VTC system/endpoints shall meet the requirements of FTR1080B-2002 (R) | Met ³ | 5.2.12.4.5 |
| | | | ITU-T H.323 in accordance with FTR 1080B-2002 (C) | Met | 5.2.12.4.5 |
| | | | Layer 3 Differential Service Code Point tagging as specified in UCR, 5.2.12.8.2.9 (C) | Met | 5.2.12.4.5 |
| | | | A loss of any conferee on a multipoint videoconference shall not terminate or degrade the DSN service supporting VTC connections of any of the other conferees. (R) | Met | 5.2.12.4.5 |
| | | | Physical, electrical, and software characteristics shall not degrade or impair switch and associated network operations (R) | Met | 5.2.12.4.5 |
| ISDN PRI NI2 T1 (ITU-T Q.931) ISDN PRI E1 (ITU-T Q.931) | No ¹ | Yes | The VTC system/endpoints shall meet the requirements of FTR1080B-2002 (R) | Met | 5.2.12.4.5 |
| | | | A loss of any conferee on a multipoint videoconference shall not terminate or degrade the DSN service supporting VTC connections of any of the other conferees. (R) | Met | 5.2.12.4.5 |
| | | | Integrated PRI interface shall be in conformance with IAS requirements in UCR, 5.2.12.7 (IAS) (C) | Met | 5.2.12.4.5 |
| | | | Physical, electrical, and software characteristics of VTU system(s)/ endpoint(s) that are used in the DSN network shall not degrade or impair the serving DSN switch and its associated network operations.(R) | Met | 5.2.12.4.5 |
| | Yes | Certified | GR-815, STIGs and DoDI 8510.bb (DIACAP) (R) | Met ⁴ | 3.2.3, 3.2.5, and 5.4.6.1 |
| NOTES: 1 The UCR does not state a minimum required interface for a VTC system. A VTC system can offer any one of the following interfaces: ISDN BRI, Serial, T1 ISDN PRI, E1 ISDN PRI, or IP. If IP (i.e. ITU-T H.323) is the only offered interface, the SUT must include an IP to TDM gateway to connect to the DSN. 2 The SUT met the conditional requirements for an IP interface with the ITU-T H.323 protocol; however, Assured Service is not yet defined for an IP interface with ITU-T H.323 protocol. Therefore, C2 VTC users and Special C2 VTC users are not authorized to be served by an IP interface with the ITU-T H.323 protocol. Furthermore, the SUT does not offer IPv6; however, this requirement is currently a conditional requirement for an MCU. This requirement will be changed to required in the UCR, Change 1. In the interim, OSD has issued an interim rules of engagement dated 31 July 2009, and the vendor will have 18 months from this date to comply. There is no operational impact. 3 The SUT does not support NX56 bonding in accordance with the FTR 1080B-2002. This discrepancy was adjudicated by DISA on 26 January 2010, as having a minor operational impact. 4 Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f). | | | | | |

Table 1. SUT Functional Requirements and Interoperability Status (continued)

| | | | |
|----------------|---|-------|--|
| LEGEND: | | | |
| BRI | Basic Rate Interface | ISDN | Integrated Services Digital Network |
| C | Conditional | ITU-T | International Telecommunication Union - Telecommunication Standardization Sector |
| C2 | Command and Control | kbps | kilobits per second |
| DIACAP | Department of Defense Information Assurance Certification and Accreditation Process | Mbps | Megabits per seconds |
| DISA | Defense Information Systems Agency | MCU | Multipoint Control Unit |
| DoDI | Department of Defense Instruction | NI2 | National ISDN Standard 2 |
| DSN | Defense Switched Network | NX56 | Data format restricted to multiples of 56 kbps |
| E1 | European Basic Multiplex Rate (2.048 Mbps) | OSD | Office of the Secretary of Defense |
| FTR | Federal Telecommunications Recommendation | PRI | Primary Rate Interface |
| FTR 1080B-2002 | Video Teleconferencing Services | Q.931 | Signaling Standard for ISDN |
| GR | General Requirements | R | Required |
| GR-815 | Generic Requirements For Network Element/Network System (NE/NS) Security | STIGs | Security Technical Implementation Guides |
| H.323 | Standard for multi-media communications on packet-based networks | SUT | System Under Test |
| IAS | Integrated Access Switch | TDM | Time Division Multiplexing |
| IP | Internet Protocol | T1 | Digital Transmission Link Level 1 (1.544 Mbps) |
| IPv6 | Internet Protocol version 6 | UCR | Unified Capabilities Requirements |
| | | VTC | Video Teleconferencing |
| | | VTU | Video Teleconferencing Unit |

5. No detailed test report was developed in accordance with the Program Manger's request. JITC distributes interoperability information via the JITC Electronic Report Distribution system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/.gov users on the NIPRNet at <https://stp.fhu.disa.mil>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool at <http://jit.fhu.disa.mil> (NIPRNet), or <http://199.208.204.125> (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability website at <http://jitc.fhu.disa.mil/tssi>.

6. The JITC point of contact is Mr. Brad Friedman, DSN 879-5057, commercial (520) 538-5057, FAX DSN 879-4347, or e-mail to brad.friedman@disa.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0909601.

FOR THE COMMANDER:



RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

2 Enclosures a/s

JITC Memo, JTE, Special Interoperability Test Certification of the Polycom RMX 2000 with Software Release 4.5.0.F

Distribution (electronic mail):

Joint Staff J-6

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Office of Assistant Secretary of Defense (NII)/DOD CIO

U.S. Joint Forces Command, Net-Centric Integration, Communication, and Capabilities Division, J68

Defense Information Systems Agency, GS23

ADDITIONAL REFERENCES

- (c) Defense Information Systems Agency, "Department of Defense Networks Unified Capabilities Requirements 2008," 22 January 2009
- (d) Office of the Secretary of Defense, "Interim Unified Capabilities (UC) IPv6 Rules of Engagement (ROE)," 31 July 2009
- (e) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006
- (f) Air Force Test Facility, "Information Assurance (IA) Assessment of Polycom RMX 2000 Software Release 4.5.0.F," 8 December 2009

CERTIFICATION TESTING SUMMARY

1. SYSTEM TITLE. Polycom RMX 2000 with Software Release 4.5.0.F; hereinafter referred to as the System Under Test (SUT).

2. PROPONENT. Air Force Network Integration Center (AFNIC).

3. PROGRAM MANAGER. Mr. Daniel Givens, AFNIC-ESMI, 203 West Losey Street, Scott Air Force Base, Illinois, 62225, Email: daniel.givens@us.af.mil.

4. TESTER. Telecommunication Systems Security Assessment Program (TSSAP) testing facility of the 346th Test Squadron at the 318th Information Operations Group, United States Air Force, San Antonio, Texas.

5. SYSTEM UNDER TEST DESCRIPTION. The SUT is a network appliance that provides multi-bridge Video Teleconferencing (VTC) capabilities. The primary function is to serve as a bridge to allow multiple endpoints such as codecs and other VTC units to communicate in a single call. The SUT supports endpoints using International Telecommunication Union-Telecommunication Standardization Sector (ITU-T) H.323 or ITU-T H.320. The SUT architecture consists of a single rack mountable chassis which can be populated with up to 8 function cards. These cards provide conference room resources and interfaces with the Public Switched Telephone Network and Defense Switched Network (DSN) voice and video networks. The SUT is managed via a Hypertext Transfer Protocol Secure session or by using the Polycom RMX Manager 4.5.0.F application. This allows for configuration changes, teleconference scheduling, VTC bridge status monitoring, and maintenance on the system. The SUT supports the following features which were met through testing or vendor submission of Letters of Compliance (LoC) unless otherwise noted:

- Integrated Services Digital Network (ISDN) Primary Rate Interface (PRI), Digital Transmission Link Level 1 (T1), or European Basic Multiplex Rate (E1), and ITU-T H.320. The SUT supports only 1 mode at a time, either T1 or E1.
- Network Interfaces: ISDN PRI T1 or E1, 10/100/1000 Megabits per second (Mbps) auto network interface card
- Standards: ITU-T H.320 up to 2 Mbps
- ITU-T H.323
- Audio standards: ITU-T G.711, ITU-T G.722, ITU-T G.722.1, ITU-T G.728, Moving Picture Experts Group 4 Advanced Audio Coding – Low Delay (MPEG-4 AAC-LD)
- Video standards: ITU-T H.261, ITU-T H.263, ITU-T H.263++, ITU-T H.264, ITU-T H.239, ITU-T H.241
- Multi-Control Point compatibility ITU-T H.243, ITU-T H.231, ITU-T H.221, ITUT H.224/H.281
- Inverse Multiplexing ITU-T H.244
- Up to 160 Multipoint Control Unit video ports and up to 12 ISDN PRI ports.

6. OPERATIONAL ARCHITECTURE. The Unified Capabilities Requirements (UCR) DSN architecture in Figure 2-1 on the following page depicts the relationship of the SUT to the DSN switches.

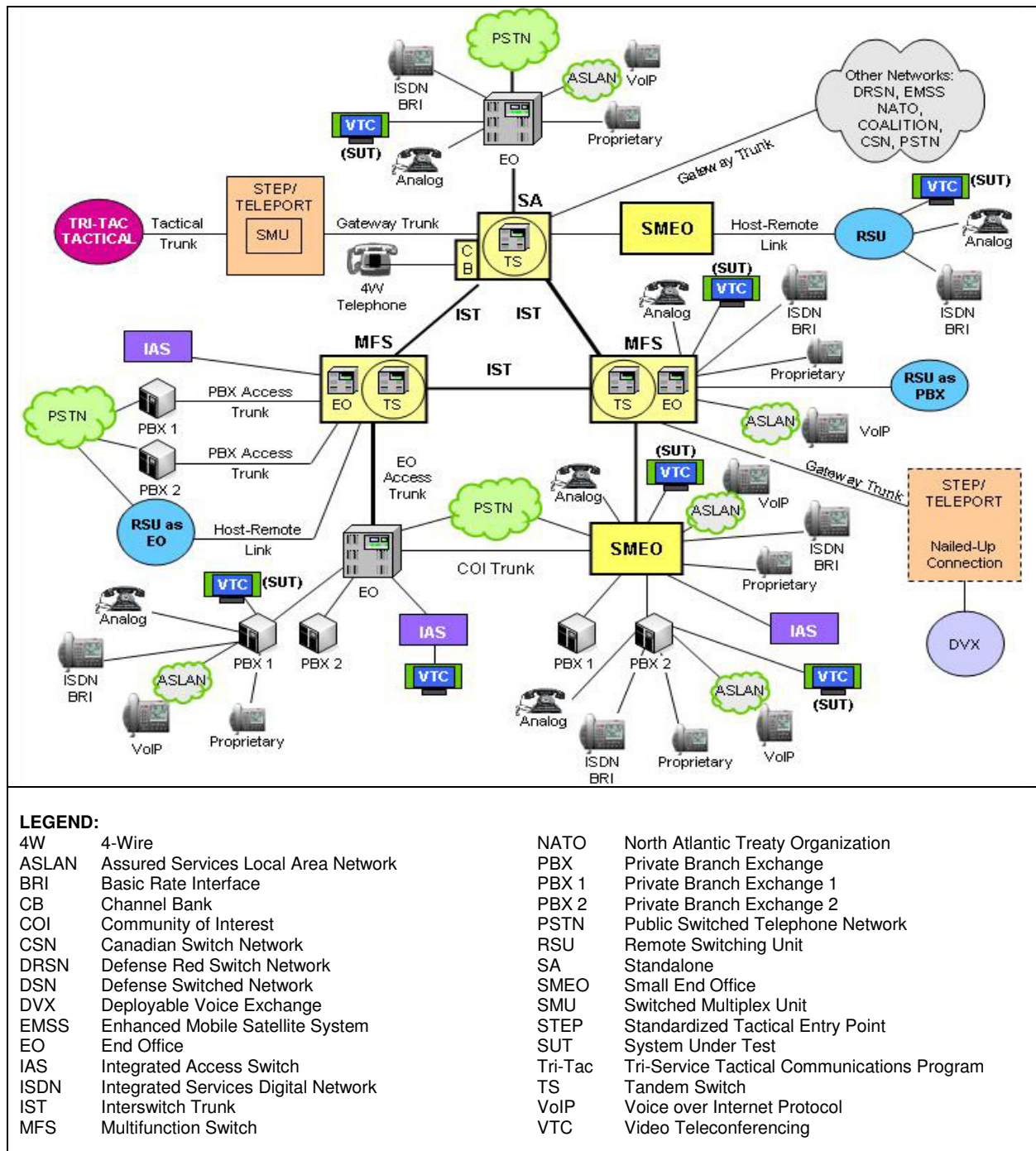


Figure 2-1. Relationship of the SUT to the DSN Architecture

7. REQUIRED SYSTEM INTERFACES. Requirements specific to the SUT and interoperability results are listed in Table 2-1. These requirements are derived from the Interfaces and Functional Requirements and verified through Air Force (AF) Test Facility testing and review of the vendor-provided LoC

Table 2-1. SUT Functional Requirements and Interoperability Status

| Interface | Critical | Certified | Functional Requirements | Status | UCR Reference |
|--|-----------------|------------------|--|------------------|---------------------------|
| IP (10/100 Mbps) ITU-T H.323 | No ¹ | Yes ² | The VTC system/endpoints shall meet the requirements of FTR1080B-2002 (R) | Met ³ | 5.2.12.4.5 |
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| ISDN PRI NI2 T1 (ITU-T Q.931) ISDN PRI E1 (ITU-T Q.931) | No ¹ | Yes | The VTC system/endpoints shall meet the requirements of FTR1080B-2002 (R) | Met | 5.2.12.4.5 |
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| | | | Integrated PRI interface shall be in conformance with IAS requirements in UCR, 5.2.12.7 (IAS) (C) | Met | 5.2.12.4.5 |
| | | | Physical, electrical, and software characteristics of VTU system(s)/ endpoint(s) that are used in the DSN network shall not degrade or impair the serving DSN switch and its associated network operations.(R) | Met | 5.2.12.4.5 |
| | Yes | Certified | GR-815, STIGs and DoDI 8510.bb (DIACAP) (R) | Met ⁴ | 3.2.3, 3.2.5, and 5.4.6.1 |

NOTES:

- 1 The UCR does not state a minimum required interface for a VTC system. A VTC system can offer any one of the following interfaces: ISDN BRI, Serial, T1 ISDN PRI, E1 ISDN PRI, or IP. If IP (i.e. ITU-T H.323) is the only offered interface, the SUT must include an IP to TDM gateway to connect to the DSN.
- 2 The SUT met the conditional requirements for an IP interface with the ITU-T H.323 protocol; however, Assured Service is not yet defined for an IP interface with ITU-T H.323 protocol. Therefore, C2 VTC users and Special C2 VTC users are not authorized to be served by an IP interface with the ITU-T H.323 protocol. Furthermore, the SUT does not offer IPv6; however, this requirement is currently a conditional requirement for an MCU. This requirement will be changed to required in the UCR, Change 1. In the interim, OSD has issued an interim rules of engagement dated 31 July 2009, and the vendor will have 18 months from this date to comply. There is no operational impact.
- 3 The SUT does not support NX56 bonding in accordance with the FTR 1080B-2002. This discrepancy was adjudicated by DISA on 26 January 2010, as having a minor operational impact.
- 4 Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).

Table 2-1. SUT Functional Requirements and Interoperability Status (continued)

| | | | |
|----------------|---|-------|--|
| LEGEND: | | | |
| BRI | Basic Rate Interface | ISDN | Integrated Services Digital Network |
| C | Conditional | ITU-T | International Telecommunication Union - Telecommunication Standardization Sector |
| C2 | Command and Control | kbps | kilobits per second |
| DIACAP | Department of Defense Information Assurance Certification and Accreditation Process | Mbps | Megabits per seconds |
| DISA | Defense Information Systems Agency | MCU | Multipoint Control Unit |
| DoDI | Department of Defense Instruction | NI2 | National ISDN Standard 2 |
| DSN | Defense Switched Network | NX56 | Data format restricted to multiples of 56 kbps |
| E1 | European Basic Multiplex Rate (2.048 Mbps) | OSD | Office of the Secretary of Defense |
| FTR | Federal Telecommunications Recommendation | PRI | Primary Rate Interface |
| FTR 1080B-2002 | Video Teleconferencing Services | Q.931 | Signaling Standard for ISDN |
| GR | General Requirements | R | Required |
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| H.323 | Standard for multi-media communications on packet-based networks | SUT | System Under Test |
| IAS | Integrated Access Switch | TDM | Time Division Multiplexing |
| IP | Internet Protocol | T1 | Digital Transmission Link Level 1 (1.544 Mbps) |
| IPv6 | Internet Protocol version 6 | UCR | Unified Capabilities Requirements |
| | | VTC | Video Teleconferencing |
| | | VTU | Video Teleconferencing Unit |

8. TEST NETWORK DESCRIPTION. The SUT was tested at the AF Test Facility in a manner and configuration similar to that of the DSN operational environment. Testing the system's required functions and features was conducted using the test configurations depicted in Figure 2-2.

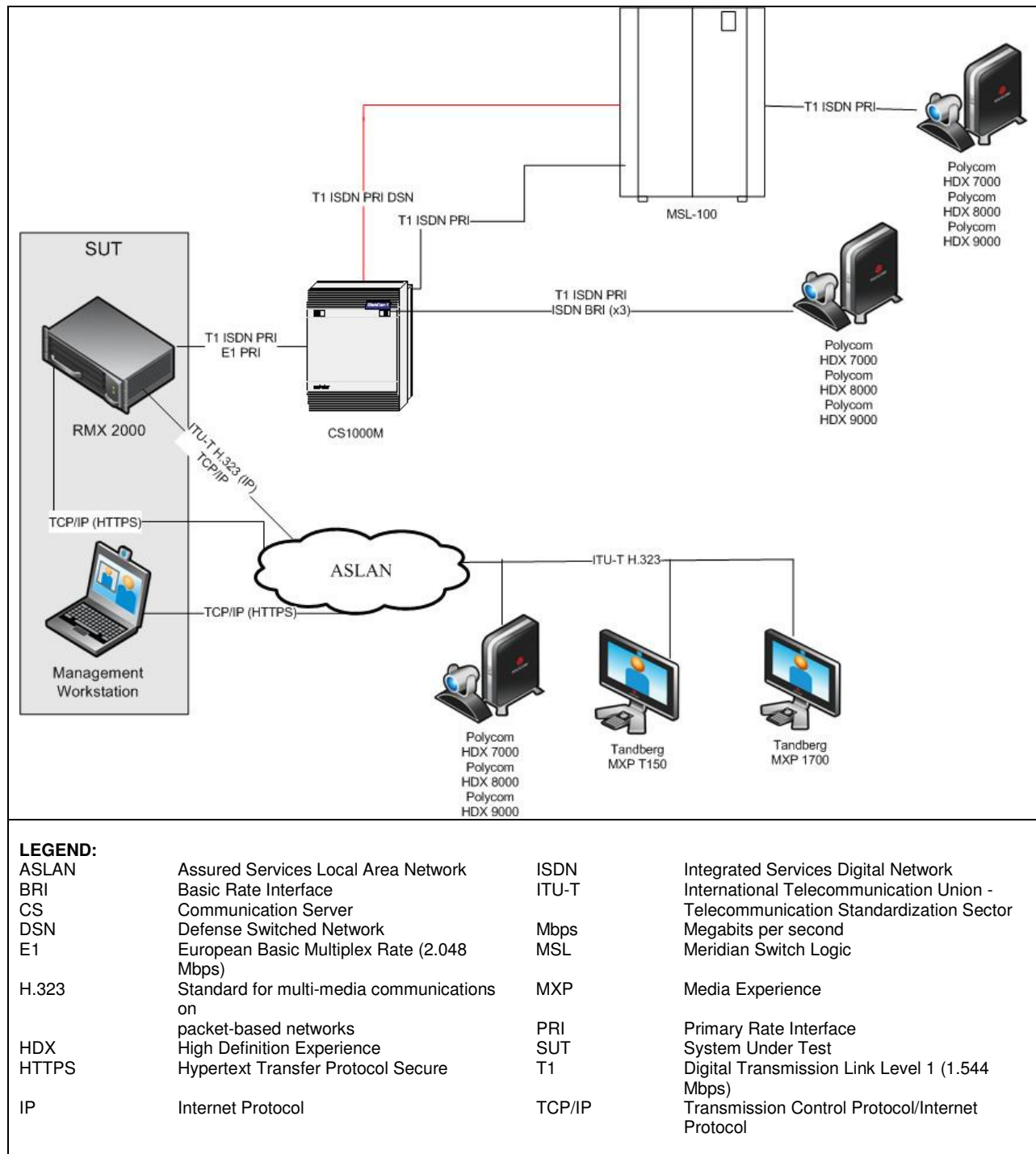


Figure 2-2. SUT Test Configuration

9. SYSTEMS CONFIGURATIONS. Table 2-2 provides the system configurations, hardware, and software components tested with the SUT. The SUT was tested in an operationally realistic environment to determine interoperability with a complement of DSN switches noted in Table 2-2. Table 2-2 lists the DSN switches which depict the tested configuration and is not intended to identify the only switches that are certified with the SUT. The SUT is certified with switching systems listed on the Unified Capabilities Approved Products List that support one or more of the interfaces specified in Table 2-1.

Table 2-2. System Under Test Configuration

| System Name | Software Release |
|--|---|
| Avaya MSL-100 | MSL-17 |
| Avaya Meridian 1 Option 11C/CS1000M Cabinet | 4.5 |
| Avaya Meridian 1 Option 61C | 24.25 |
| Tandberg MXP T150 | L5.1, Security |
| Tandberg MXP 1700 | F7.0 Security |
| Polycom HDX7000 | 2.0.5 J-2854 |
| Polycom HDX8000 | 2.0.5 J-2854 |
| Polycom HDX9000 | 2.0.5 J-2854 |
| System Under Test | Hardware |
| Polycom RMX 2000 Release 4.5.0.F | Chassis hardware: 1.21 Control: 1.22 Control: 1.08 (RMX with 2 MPM+80 cards) ISDN Card: 1.06 ISDN Card: 1.05 (RMX with 2 MPM+80 cards) Network Card: 2.07 Network Card: 2.04 (RMX with 2 MPM+80 cards) MPM+20: 1.22 MPM+40: 1.22 MPM+80: 1.21 Backplane: 1.04 |
| LEGEND: BRI Basic Rate Interface CS Communication Server HDX High Definition Experience ISDN Integrated Services Digital Network MPM Media Processing Module MSL Meridian Switch Logic MXP Media Experience PRI Primary Rate Interface | |

10. TEST LIMITATIONS. None

11. TEST RESULTS.

a. Discussion. The SUT minimum critical interoperability interface and functional requirements were met through both interoperability certification testing conducted at the Air Force Test Facility and review of the vendor's LoC. Bonding mode 1 was tested to requirements defined in UCR, 5.2.12.4.5 and Federal Telecommunications Recommendation (FTR) 1080B-2002. Bonding, often referred to as channel aggregation, takes place through inverse multiplexing. Inverse multiplexing takes a high-bandwidth signal and splits it for transport through the network over multiple lower-bandwidth channels. At the receiving end, the multiple, lower-bandwidth signals are recombined into the original high-bandwidth signal. A passed test result was based on 100 percent of the calls receiving a score of four or better on the subjective quality scale as defined in Table 2-3. Furthermore the SUT has the capability of connecting

multiple sites at different bandwidth rates. None of the conferees that are connected to the SUT were reduced in video quality due to one conferee being at a lower restricted bandwidth.

Table 2-3. Video and Voice Subjective Quality Scale

| Rating | Reference | Definition |
|---|-----------------|---|
| 1 | <i>Unusable</i> | <u>Quality is unusable.</u> Voice and video may be heard and seen but is unrecognizable. |
| 2 | Poor | <u>Quality is unusable.</u> Words and phrases are not fully understandable or video cannot be properly identified. |
| 3 | Fair | <u>Quality is seriously affected by distortion.</u> Repeating words and phrases are required to convey speech or video is seriously impacted and barely recognizable. |
| 4 | Good | <u>Quality is usable. Audio or video is not impaired but some distortion is noticeable</u> |
| 5 | Excellent | <u>Quality is unaffected.</u> No discernable problems with either audio or video. |
| NOTE: Audio and video quality during a conference will receive a subjective rating on the Data Collection Form. A rating of lower than 4 on this reference scale is considered a failure. | | |

b. Test Conduct. Multiple two-way 64 kbps – 1.920 Mbps bonding mode 1 multipoint test calls at different durations (15-minute, 30-minute, 1-hour, 24-hours, and 48-hours) were placed over the test network shown in Figure 2-2 via all the interfaces depicted in Table 2-1. The multipoint bonding mode 1 VTC test calls were placed at various precedence levels over the test configurations depicted in Figure 2-2.

(1) Seven- and ten-digit calls were placed to verify that the SUT met the capability to support both the North American Numbering Plan and the DSN World Wide Numbering and Dialing Plan (WWNDP) defined in UCR, 5.2.12.4.5 (5.2.12.7.4). Multilevel precedence video calls were placed from the SUT and established within the DSN at the respective precedence level dialing the DSN WWNDP access code (e.g. 93: Priority, 92: Immediate, 91: Flash, etc.). The SUT has the ability to prefix any DSN 7 to 10 digit number with a 9X access code which meets this requirement.

(2) The UCR, paragraph 5.2.12.4.5, states that the VTC system/endpoints shall meet the requirements of FTR 1080B-2002. The SUT does not support NX56 bonding in accordance with the FTR 1080B-2002. This discrepancy was adjudicated by the Defense Information Systems Agency on 26 January 2010, as having a minor operational impact. The SUT met the remaining requirements through testing and review of the vendor's LoC.

(3) The UCR, paragraph 5.2.12.4.5, states that a loss of any conferee on a multipoint videoconference shall not terminate or degrade the DSN service supporting VTC connections of any of the other conferees on the videoconference. This was tested during each multipoint session established with the SUT by disconnecting single and multiple conferees. This was done by hanging up and simulating a failure by disconnecting the physical interface. During the tests, the remaining conferees on the multipoint conference were not affected and remained in the conference 100 percent of the time, which met this requirement.

(4) The UCR, paragraph 5.2.12.4.5, states that VTC features and functions used in conjunction with Internet Protocol (IP) network services shall meet the requirements of ITU-T H.323 in accordance with FTR 1080B-2002. Additionally, ITU-T H.323 Video End Instruments must meet the tagging requirements as specified in UCR 2008, section, 5.2.12.8.2.9. This requirement was met by the SUT. The SUT has the ability to apply a Service Class Tag for signaling and video media at any value 0 to 63.

(5) The UCR, paragraph 5.2.12.4.5, states that a VTC system/endpoint that uses an integrated PRI interface to connect to the DSN shall be in conformance with the requirements associated with an Integrated Access Switch as described in the UCR, paragraph 5.2.12.7. In accordance with the UCR reference, the SUT met this requirement with National ISDN 2 protocol and was met with testing and the vendor's LoC.

(6) The UCR, paragraph 5.2.12.4.5, states that the physical, electrical, and software characteristics of Video Teleconferencing Unit system(s)/ endpoint(s) that are used in the DSN network shall not degrade or impair the serving DSN switch and its associated network operations. This was verified by conducting other tests on the serving DSN while point-to-point and multipoint video sessions were established. During these tests, the SUT physical, electrical, and software characteristics did not impair the serving DSN switch and its associated operations.

(7) Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).

c. Test Summary. The SUT met the critical interface and functional requirements for a VTC system for the interfaces depicted in Table 2-1, as set forth in Reference (c), and is certified for joint use within the DSN. The SUT met the requirements for an IP interface with the ITU-T H.323 protocol; however, Assured Service is not yet defined for an IP interface with the ITU-T H.323 with the protocol. Since the IP interface with the ITU-T H.323 protocol does not provide Assured Services during a crisis or contingency, users' access to the DSN will be on a best effort basis. Therefore, Command and Control (C2) VTC users and Special C2 VTC users are not authorized to be served by an IP interface with the ITU-T H.323 protocol.

12. Test and Analysis Report. No detailed test report was developed in accordance with the Program Manager's request. Joint Interoperability Test Command (JITC) distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at <https://stp.fhu.disa.mil>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at <http://jit.fhu.disa.mil> (NIPRNet), or <http://199.208.204.125> (SIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>.